

**REMARKS**

In response to the Office Action dated November 25, 2005, Applicants have amended Claims 15, 32, 33, 47 and 54. Thus, Claims 15, 17-33, 35-45, 47, 49-54 and 56-60 remain pending in the application. Reconsideration of the claims, as amended, is respectfully requested.

Claims 15, 21, 27-30, 32, 33, 39, 47, 51, 54 and 58 were rejected Under 35 U.S.C. §103(a) as being unpatentable over *Iwamatsu* in view of *Gehring*. Claim 15 has been amended to include the step of "repositioning in real time select ones of the plurality of virtual locations to apparent positions above and below the azimuthal plane to maintain constant virtual distances between the listening position and each of the plurality of virtual locations responsive to movement of the listening position such that the perceived virtual locations of the sound signals do not vary with movement of the listening position." Each of the virtual locations are associated with one of a plurality of sound signals created by processing a non-binauralized input sound signal representing a sound source. Neither of the *Iwamatsu* or *Gehring* references disclose repositioning in real time virtual locations to maintain constant virtual distances between the listening position and each of the plurality of virtual locations responsive to movement of the listening position such that the perceived virtual locations of the sound signals do not vary with movement of the listening position.

The Official Action has apparently admitted that the *Iwamatsu* reference does not describe repositioning of virtual locations. The HRTF function described in the *Gehring* reference does not reposition in the manner described in Applicants' Claim 15. While the *Gehring* reference may describe the use of head related transfer functions (HRTFs) to spatially generate a sound source, in the portions of the reference recited in the Official Action, the reference does not appear to describe repositioning in real time select ones of the plurality of virtual locations to apparent positions above and below the azimuthal plane to maintain constant virtual distances between a listening position and each of the plurality of virtual locations responsive to movement of the listening position such that the perceived virtual locations of the sound signals do not vary with movement of the listening positioning. Also, the

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plurality of virtual locations are not associated with sound signals that each represent a sound source.

Furthermore, the comments in the Official Action indicated that "the HRTF system as taught by *Gehring* will place the sound somewhere in a 3D sphere as seen in figure 1 of *Gehring* based on the sound's HRTF. In this way, at least some (if not all) sounds will be repositioned." Applicants respectfully submit that the mere use of an HRTF to position a sound does not describe repositioning a sound as described in Applicants' claim. While an HRTF may be used to initially place a sound as described in *Gehring*, the repositioning of a virtual position of a sound as described in Applicants' claims is not illustrated by the *Gehring* reference. Therefore, the Applicants respectfully submit that Claim 15, and all claims dependent therefrom, are distinguishable from the art of record and a Notice of Allowance is respectfully requested.

Claims 33, 47 and 54 include limitations similar to those described with respect to Claim 15 with respect to the step of repositioning. Therefore, the Applicants respectfully submit that Claims 33, 47 and 54 and all claims dependent therefrom, are distinguishable from the art of record and a Notice of Allowance is respectfully requested.

Claims 31 and 45 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Iwamatsu* and *Gehring* and further in view of *Begault*. Applicants respectfully submit that Claims 31 and 45, being dependent upon previously discussed Claims 15 and 33, are allowable for similar reasons as the *Begault* reference fails to overcome the shortcomings of *Iwamatsu* and *Gehring*. A Notice of Allowance is respectfully requested.

Claims 18-20, 36-38, 50 and 57 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Iwamatsu* in view of *Gehring* and further in view of *Gorike*. Applicants respectfully submit that these claims, being dependent upon previously discussed Claims 15, 33, 47 and 54, are allowable for similar reasons as the *Gorike* reference fails to overcome the shortcomings of *Iwamatsu* and *Gehring*.

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Claims 17, 22-26, 35, 40-44, 49, 52, 53, 56, 59 and 60 were rejected as being unpatentable over *Iwamatsu* in view of *Gehring* and further in view of *Miyamori*. Applicants respectfully submit that these claims, being dependent upon previously discussed Claims 15, 33, 47 and 54, are allowable for similar reasons as the *Miyamori* reference fails to overcome the shortcomings of *Iwamatsu* and *Gehring*. A Notice of Allowance is respectfully requested.

In view of the foregoing amendments and comments, the Applicants respectfully submit that all pending claims are allowable over the art of record and a Notice of Allowance is respectfully requested.

Respectfully submitted,  
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January 10, 2006

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